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Governance and environmental degradation in MENA region

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Abstract

This paper uses annual aggregate data for 21 countries in Middle East and North Africa (MENA) region for the period 2002-2007 to determine the impact of a better quality or so-called good governance on environmental degradation. The paper uses three governance indicators namely, government effectiveness, regulatory quality and control of corruption published by Political Risk Services International Country Risk Guide (PRS). Our findings regarding government effectiveness based on panel data regression analysis support positive effect on environmental quality. In the other word, better governance has a negative impact on environmental degradation. Therefore, policies to improve governance indicators in the region are suggested.

*Keywords:*Environmental Degradation, Governance, Paneldata Regression, MENA;

1. Introduction

This study linked two complicated concepts, governance and environmental degradation. Environmental degradation is the deterioration of the environment through depletion of resources such as air, water and soil. It is defined as any change or disturbance to the environment perceived to be deleterious or undesirable.

This article advances the thesis that environmental degradation and poor governance are interlinked. The key assumption here is that ecological mismanagement and related disasters are largely symptoms of poor governance.

In order to make sustainable use of resources and protection of environmental quality, good environmental governance is necessary. These purposes require a transparent system of well-operating environmental organizations, policies, and plans that actively include the public in their devising and performing. For example, clarification of resource tenure rights and provision of tenure protection is important to the sustainable management of natural resources.

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2. Governance Concepts

Aaccording to Jordan et al. (2003) and Mineur (2007), Governance is seen as a culture change in direction from the traditional style, that can be interpreted as a form of government based on activities carried out primarily or entirely by state agencies, particularly the nation-state level.

Governance is usually linked to a wide view where the boundaries between public and private sectors and between different administrative levels are less significant (Mineur, 2007).

The 'good governance' is given various meanings by different organizations, but it is generally described as referring to openness, participation, accountability, predictability, and transparency. According to the United National Development Programme (UNDP) good governance as 'not only ridding societies of corruption but also giving people the rights, the means, and the capability to participate in the decisions that affect their lives and to hold their governments accountable for what they do. It means fair and just democratic governance'.

The European Commission defined good governance composed of five principles; trade openness, participation, accountability, efficiency, and consistency (Bosselmann, et al. 2008).

Governance is "corporate governance", when apply to the way in that business corporations are directed and controlled. It also consists in the ideas use from the private sector as a model for enhancing public administration direction impressiveness (Costa et al., 2010)

Kaufman, Kray, Mastruzi, (2006) defined the Governance as a plural and inclusive concept. It translates into joint actors, nonprofit sector, entrepreneurs, governments at different levels and other society sections, able to be represented on projects and plans that suggest a utopian city, with life quality and extensive sustainability or shared leadership.

The six dimensions of governance corresponding to Kaufman, Kray, and Mastruzi (2004), are

1) Voice and Accountability (VA): country's citizens are able to participate in selecting their government, speech and association freedom and free media;

2) Political Stability and Absence of Violence (PV): perceptions of the likelihood perceptions that the government come to be destabilized or overthrown by unconstitutional or violent means, including political violence and terrorism;

3) Government Effectiveness (GE): the quality of public services and civil service, its independence degree from political pressures, the policy formulation quality and implementation, and the credibility of the government in compliance to such policies;

4) Regulatory Quality (RQ): government ability to implement and formulate sound policies and regulations that promote private sector development;

5) Rule of Law (RL): as agents have confidence in and abide by the rules of society, and in particular the contract enforcement quality, property rights, the police and courts, in addition to the likelihood of crime and violence;

6) Control of Corruption (CC): perceptions of the extent, as far as it exercises public power for private gain, including both petty and major corruption forms as well as the State "capture" by elites and private interests

In addition to their indicators around the world, the governance is the result of a research project on indicators commissioned by the World Bank in the late 1990s. The indicators measure six governance dimensions: representation and accountability, political stability and violence absence, government effectiveness, regulatory quality, law rules and corruption control (Kaufman, Kray, Mastruzi, 2006).

Swanson and Pinter (2006) on the other hand, performed a study commissioned by OECD in about twenty countries to recognize examples of structures and practices of good governance and to study the effectiveness for sustainable development strategies. His studies give special attention to governance related to the following structures: the coordination strategy nature, placing the accountability for overall national strategies for sustainable

development, the underlying laws, joining with the programming and budgeting; stakeholder participation with local actions for sustainable development.

3. Background

Procedure of Social change, regarding population growth, technological and scientific innovation, consumption and production patterns and economic growth are increasingly observed as the major drivers of environmental change (Young 2006, Schellnhuber 1999, Vitousek and others1997).

In most societies, Environmental governance has been remain a minor concern, a minimalist shallow plans have designed to avoid litigation and voter disquiet (Bosselmann, et al. 2008).

Governance systems can be considered as institutional filters, mediating between human actions and biophysical processes (Kotchen and Young 2006). Efficient, linked and consistent governance and policy responses within the framework of sustainable development is required connected environment-development challenges. Also, Governance for sustainable development needs effective managements, and enabling legal and regulatory structures. For two decades development in this area is mixed, with limited success. But, there are some encouraging developments at international, regional and national levels, involving the private sector and civil society, which give important lessons and directions for managing interlinked environment-development challenges. This involves the appearance of flexible, more adaptive governance entities.

The concentration and action is shifting from the development of rules and policies to their performing in all countries. In that respect, capacity building at all levels, particularly in developing countries, is the important key (Berruga and Maurer 2006).

Environmental governance has been emerged as a distinct area of policy and research, especially in the context of extending the eclectic "theoretical and knowledge foundation of sustainability and environmental justice" (Agyeman, Bullard, & Evans, 2003). The links between environmental quality (or scarcity) and social and political wellbeing are recognized by a variety of formal organizations and social movements, and are often signaled by concerns over the raising economic and ecological contrasting that are emphasize by the raise globalization (Faber & McCarthy, 2003; Peluso & Watts, 2001).

The project funding of World Bank has "greened" from the 1980s. A series of environmental conditions now along with major foundation projects, more "disciplining" receiver countries and local populations into accepting new laws, environmental commitments, and property rights (Goldman, 2004).

Most studies support the claims of political ecologists that there are no simplistic linkages between resource use, economic activity, the collapse of civil order or safety, and results of development (Peluso & Watts, 2001). "Struggles on the resources lie at the center of struggles on the power" (Peet & Watts, 2004), and there is a clear association between local politics and social relationships, and the "larger procedures of material transformation and power relationships" in the environmental domain (Peluso & Watts, 2001). Resource degradation caused by, and strongly affects, political and social change. It is vital to seek descriptions for these changes at varios scales, and across the human and non-human worlds; from the international economy down to the systems of rules governing local access to forests. Social relationships and politics, Biophysical change and ideas and discourses (made real by policy) are linked. The processes acting upon places are scaled and placed within each other.

These researches permit assessments of the multiple effects of governance changes, and specially those created by the decentralization of resource management (IIED, 2004). There are still more important questions about the effectiveness of decentralizing to levels where the capture of rents by elites and new political schisms can occur—decentralized institutions need to be well implied and well planned to prevent this (Faguet, 2003; Mansuri & Rao, 2004). Moreover, the political, ecological, and discursive elements of the policy need to be analyzed concurrently, particularly where local institutions gain new powers over natural resources. Reconciling culturally suitable exercise

with universal standards of environmental governance is a more important challenge, infrequently carried out successfully, and often including occurrences of mutual incomprehension and mistrust (Filer, 2000).

The central hypothesis in this study is that sustainable development cannot be achieved without governance due to the nature of the sustainable development concept.

4. Data & Model

This article employs a panel data regression for 16 MENA countries for which data are available over the period 2002-2007. The dependent variable is environmental degradation .we use co2 emission as a proxy for environmental degradation. The independent variables include government effectiveness, regulatory quality and control of corruption as shown below:

$$ED_{it} = \beta_1 + \beta_2 GE_{it} + \beta_3 RQ_{it} + \beta_4 CC_{it} + u_{it}$$
$$i = 1,2,\ldots,N$$
$$t = 1,2,\ldots,T$$

5. Empirical Results

We have used a panel data regression model. Also, in order to select the appropriate method of estimation among OLS the pooled model, Fixed Effects (FE), and Random Effects (RE) we applied the Chow, Lagrange Multiplier (LM) and Hausman tests utilizing Eviews 7.

Chow, Lagrange Multiplier and Hausman tests for the model have been presented in Table 1.

Table-1: Chow, Lagrange Multiplier and Hausman Tests

Test	Test-Statistic	P-value	Result
Chow	97.68	0.0000	FE
LM	244.39	0.0000	RE
Hausman	58.18	0.0000	FE

Based on the result in table 1, the model is fixed effects (FE). The results of fixed effects panel data model have been presented in table 2.

Table-2: Results of Estimation of Model

Depended Variable: Environmental Degradation

$$ED_{it} = \beta_1 + \beta_2 GE_{it} + \beta_3 RQ_{it} + \beta_4 CC_{it} + u_{it}$$

Independent Variable	Coefficient	t-Statistic	Prob.
GE	- 1.1229	-2.079	0.0401
RQ	1.8328	4.2654	0.0000
CC	1.6695	4.2483	0.0000
F		128.22	
P-value		0.0000	
R^2		0.96	
R^2 Adjusted		0.95	

6. Conclusion

This paper investigated the impact of governance indicators on environmental degradation for counties in MENA region over the period 2002-2007. The results based on the panel regression data analysis show that government effectiveness has a positive effect on environmental quality. In the other word, better governance has a negative impact on environmental degradation. Therefore, policies to improve governance indicators in the region are suggested.

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